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10/757,776	01/15/2004	David K. Boehm	06882.0096-00	5457

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

DORNBUSCH, DIANNE

ART UNIT	PAPER NUMBER
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3773

MAIL DATE	DELIVERY MODE
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07/06/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/757,776	Applicant(s) BOEHM ET AL.	
	Examiner DIANNE DORNBUSCH	Art Unit 3773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7-13,15 and 17-39 is/are pending in the application.
- 4a) Of the above claim(s) 24-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7-13,15, 17-23, 38, and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the distal end of the retainer connected to the proximal end of the reward body must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 10-12 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 10 recites that the distal end of the retainer is connected to a proximal end of the rearward body. This is being considered as new matter since the original disclosure does not specify that they are connected at the distal end and proximal end as claimed. Specifically the rearward body and the retainer connect by part 42 on the retainer and groove 46 on the rearward body, however it is not specified that the groove does not extend past the proximal end of the device (the portion of the groove seen in Fig. 6 is the proximal end as defined by applicant). Furthermore, as seen in Fig. 7, the proximal end of the rearward body is connected to the distal end of the part 14 which is proximal to the retainer as seen in Fig. 6; hence the distal end of the retainer would be connected to the distal end of the rearward body.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 3, 5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita (5,730,753) in view of Abulhaj et al. (6,852,119) and further in view of Nguyen et al, (5,944,700).

Claim 1: Morita discloses an adjustable nozzle assembly (1) through which a lancet can be propelled by a lancing device into a lancing surface, the adjustable nozzle assembly (1) comprising: an interior nozzle (3 specifically the top part 11) comprising a ramped groove (47) and a lancet wall (13); a collar (5) comprising a collar pin (53) that engages the ramped groove (47) and slides relative to the ramped groove (Col. 12 Lines 65-68 and Col. 13 Lines 9-14), the collar (5) being adapted to rotate relative to the interior nozzle (3,11) (Col. 12 Lines 12-15); and an exterior nozzle (7) comprising a contact surface (35) that extends beyond the lancet wall (13) of the interior nozzle (3,11) to contact the lancing surface (Fig. 1), the exterior nozzle (7) engaging the collar (5) (Col. 13 Lines 50-53) and being adapted to rotate relative to the interior nozzle (3,11) (Col. 13 Lines 58-60); and wherein the ramped groove (47) is sloped (Fig. 1) such that as the exterior nozzle (7) rotates relative to the interior nozzle (3, 11), the distance that the contact surface (35) extends beyond the lancet wall (13) changes by an amount that corresponds to the slope of the ramped groove (Col. 14 Lines 1-9).

Furthermore, Morita discloses an assembly groove (the distal end of the groove 47 which is straight in one portion), and that the collar pin (53) is configured to slide through the assembly groove to the ramped groove. The collar pin first slides to the distal end of the groove which is the assembly groove and then slides down to where the groove is ramped which is the ramped groove as seen in Fig. 1-2.

Morita further discloses a sloped mating ramp (37 where the sloped portion is the ramp leading from the notch (39) to the step (37) as best seen in Fig. 1) comprising a plurality of adjustment notches (39) (Col. 12 Lines 1-2); collar (5) further comprises a sloped collar ramp (the ramp in portion 51 and 57) with a detent (57) on one end (Fig. 2), wherein the sloped collar ramp and the detent rotate along the interior nozzle mating ramp causing the detent to engage and disengage the adjustment notches during the rotation (Col. 12 Lines 1-9).

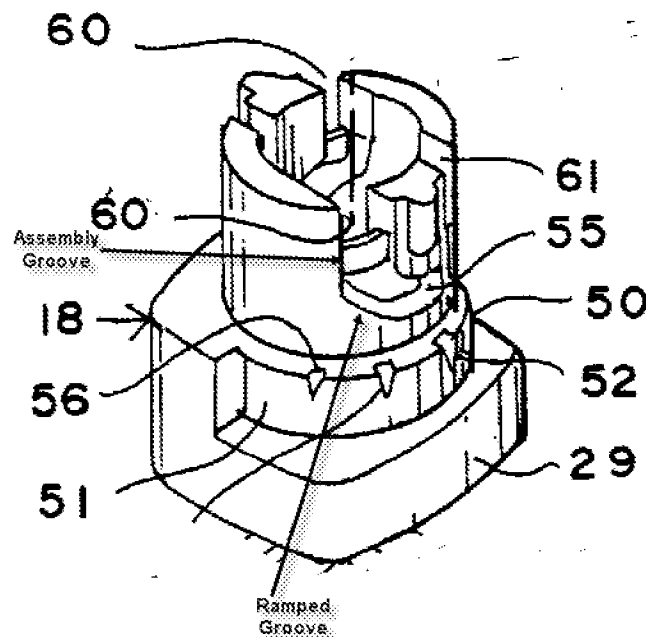
Morita discloses the claimed invention except for the location of the notches and the detents, where the notches are in the collar and not in the interior nozzle and the detents are in the interior nozzle not on the collar. It would have been obvious to one having ordinary skill in the art at the time the invention was made have the notches on the interior nozzle and the recess on the collar, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Morita discloses all the claimed limitations discussed above however, Morita does not disclose that the ramped groove is extending in a second direction deviating from the first direction in which the assembly groove extends.

Abulhaj discloses a lancet with an adjustable depth mechanism in which a cap (18) is adjustable by a pin/groove mechanism (Fig. 15-16 where the pin (31) enters the groove seen in the figure below) where the groove has an assembly groove (see figure below) extending in a first direction (it extends longitudinally from the proximal end towards the distal end) and a ramped groove (see figure below) extending in a second

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direction (it extends diagonally as seen in the figure below) deviating from the first direction (see figure below).



The substitution of one known element (the ramped and assembly groove of the threaded mechanism of Morita) for another (the ramped and assembly groove of the pin/groove mechanism of Abulhaj) would have been obvious to one of ordinary skill in the art at the time of the invention since the substitution of two well known connection mechanisms (pin/groove and threaded) which are used as depth mechanism such as the one shown in Abulhaj would have yielded predictable results of an adjustable depth mechanism.

Additionally, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Morita with the pin/groove mechanism that contains an assembly groove extending in a direction which is deviated from the

direction of the ramped groove, in order to have an entry point for the pin which would allow the pin to slid straight through until the ramped groove is reached.

Morita in view of Abulhaj discloses all the claimed limitations discussed above however, Morita in view of Abulhaj does not disclose the raised boss separating the assembly groove from the ramped groove.

Nguyen discloses an adjustable length of a injection needle where the length is adjusted by a nozzle and collar combination as seen in Fig. 1 and 5-6 which includes an groove (44) and pin combination. The Nguyen further discloses a raised boss (49) which is used to prevent the collar and nozzle from disengaging (Col. 3 Lines 40-45 and Fig. 2).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Morita in view of Abulhaj with a raised boss in view of the teachings of Nguyen, in order to prevent the collar and nozzle from disengaging.

With respect to the raised boss being between the assembly and the ramped groove it would have been obvious to one having ordinary skill in the art at the time the invention was made to place the raised boss between eth ramp and assembly grooves, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Furthermore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to place the raised boss between the assembly and ramp grooves since it would be necessary to have the raised boss at that location

in order to maintain the pin only in the ramp portion which controls the adjustments desired for the nozzle.

Claim 3: Morita in view of Abulhaj discloses the claimed invention except for the slope of the collar ramp and the slope of the mating ramp being approximately equal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the slopes approximately equal, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 5: Morita discloses that the detent forms a slotted portion of the collar ramp (Fig. 2).

Claim 7: Morita discloses that the collar (5) further comprises one or more collar alignment features (29, 25), and the exterior nozzle (7) further comprises one or more exterior nozzle alignment features (65, 55) that can engage the one or more collar alignment features (Col. 13 Lines 45-49 and Col. 14 Lines 28-30).

Claim 9: Morita discloses that the ramped groove (47) comprises an over-rotation groove. The ramped groove (47) has ends which are thinner which would not allow the collar (5) to rotate more than that point. Furthermore, the interior nozzle has a stopper (43) which will stop the device one component (25) of the collar (5) hit it. This is a prevention to over-rotation in addition to the end of the groove (47).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita (5,730,753) in view of Abulhaj et al. (6,852,119) and Nguyen et al, (5,944,700) and further in view of Duchon et al. (5,964,718).

Morita in view of Abulhaj and Nguyen discloses all the claimed limitations discussed above however, Morita in view of Abulhaj does not disclose that the contact surface is concave.

Duchon discloses that the contact surface (48) is concave (Col. 5 Lines 28-30 and Fig. 13)

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Morita in view of Abulhaj with a concave contact surface in view of the teachings of Duchon, in order to have a contact surface that adjusts to the lancing surface with minimal impact on the lancing surface.

7. Claims 13, 15, 19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hofert et al. (4,203,446) in view of Morita (5,730,753) and Abulhaj et al. (6,852,119) and further in view of Nguyen et al, (5,944,700).

Hofert discloses a rearward body assembly of a lancing device that can propel a lancet (12) into a lancing surface, the rearward body assembly comprising: a lancet holder (16) comprising one or more retaining features (14) and one or more spring surfaces (the outer area and the top surfaces of the lancet holder are spring surfaces since the surface is in contact with the springs) at the distal end (see figure below where the distal end is labeled) and one or more lancet holding features (the internal wall of 14 and 16 as seen in the Figure) at the proximal end (the proximal portion of the holding features is at the proximal end as defined in the figure below); an interior tube (34) comprising an open end (proximal end as seen in the Figure) and a slotted end (distal end where it is stepped and has an opening as seen in the Figure) through which the

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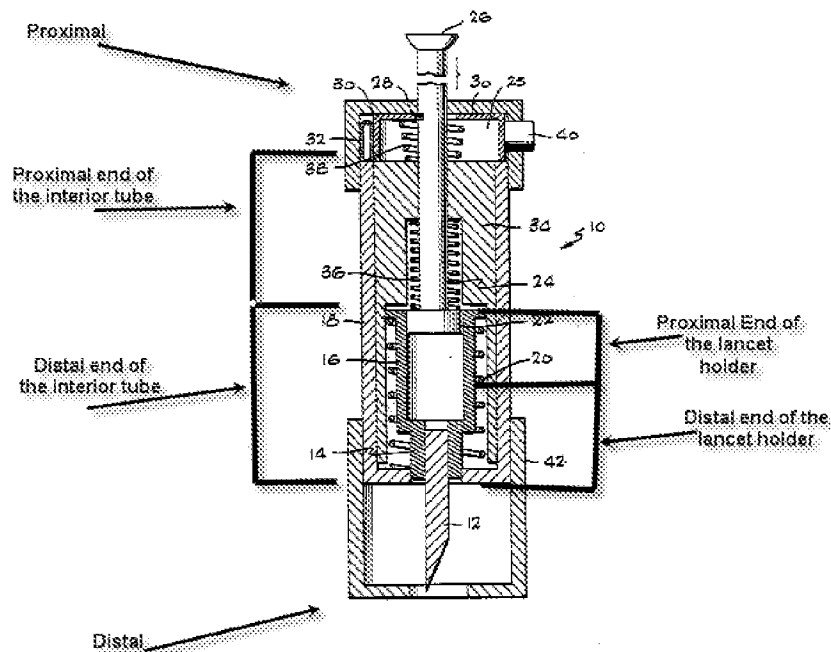
one or more retaining features extend (see the Figure where it extends out when the lancet holder is propelled out), the interior tube (34) being adapted to slidably engage the lancet holder (16) (the lancet holder is placed inside the inner tube as seen in the Figure); a finger cover (18) (note that the finger cover according to applicant's drawings is a collar that goes over the interior tube as best seen in Fig. 3 of the current application) arranged along a periphery of the interior tube (see Figure); an internal compression spring (36) comprising a first end and a second end (see Figure), the first end of the internal compression spring (36) being adapted to act on the slotted end of the interior tube (34) (the proximal end of the spring is in contact with the slotted area as seen in the Figure) and the second end of the internal compression spring (36) being adapted to act on the one or more spring surfaces of the lancet holder (16) (the distal end is in contact with the lancet holder so when a force is applied on the spring it will act on the spring surfaces); a retainer (42) comprising a slotted surface (opening where the finger collar enters) at the distal end of the interior tube (see figure below) through which the one or more retaining features extend (see the Figure where it extends out when the lancet holder is propelled out); a rearward body (combination of 24 and 22), the rearward body engaging the retainer (it is indirectly engaged to the retainer); wherein longitudinal movement of the rearward body away from the interior tube compresses the interior compression spring (36) (by pulling on the rearward body it can compress the interior tube) (Col. 3 Lines 5-10) and an external compression spring (20) comprising a first end and a second end (see the Figure), the first end comprising a reduced coil diameter that engages the one or more retaining features (14) of the lancet holder (16)

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as seen in the Figure, the first end of the external compression spring being adapted to act on the lancet holder (the spring is holding the lancet holder which will act on it to cause the deployment of the lancet) and the second end of the external compression spring being adapted to act on the slotted surface of the retainer (the spring is compressing on the retainer therefore it is acting on the slotted surface); and wherein the one or more spring surfaces of the lancet holder engages both the internal compression spring and the external compression spring (see Figure where the one or more spring surfaces engages indirectly to both spring).

Regarding the "adapted to" statements, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

Hofert discloses the claimed invention including that the rearward body is positioned externally of the interior tube (a portion of the rearward body is external as well as when it is pulled it will be external). However Hofert does not disclose that the rearward body is positioned around the periphery of the interior tube. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make that handle (26) of the rearward body be around the periphery of the interior tube in order to simplify the device and since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.



Holfert further discloses that the lancet holder (16) further comprises a trigger extension (22), the trigger extension being adapted to engage both a trigger and the interior tube to load the lancing device and to oppose the force of the compression spring until the trigger is actuated. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

Holfert also discloses that the retainer further comprises one or more retainer alignment features (interior wall of the retainer which attaches to the finger cover), and the rearward body further comprises one or more rearward body alignment features (the piece 24 serves as an alignment feature which has to fit on the center of the lancet holder (16) which has the retainer (14)) that can engage the one or more retainer

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alignment features. The rearward body engages to the step portions of the retainer which maintains the rearward body centered.

Hofert teaches all the claimed limitations discussed above however, Hofert does not disclose an adjustable nozzle assembly.

Morita discloses all the features of the adjustable nozzle claimed in claims 15, 17, 19, and 21 (refer to rejections of claims 1, 3, 5, 7, and 9).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hofert with an adjustable nozzle in view of the teachings of Morita, in order to adjust the puncturing depth of the lancet on the tissue which will adapt to different skin thickness or change the amount of blood that needs to be collected.

Hofert in view of Morita discloses all the claimed limitations discussed above however, Hofert in view of Morita does not disclose that the ramped groove is extending in a second direction deviating from the first direction in which the assembly groove extends.

Abulhaj discloses a lancet with an adjustable depth mechanism in which a cap (18) is adjustable by a pin/groove mechanism (Fig. 15-16 where the pin (31) enters the groove seen in the figure above in the rejection of claim 1) where the groove has an assembly groove (see figure above in the rejection of claim 1) extending in a first direction (it extends longitudinally from the proximal end towards the distal end) and a ramped groove (see figure above in the rejection of claim 1) extending in a second

direction (it extends diagonally as seen in the figure above in the rejection of claim 1) deviating from the first direction (see figure above in the rejection of claim 1).

The substitution of one known element (the ramped and assembly groove of the threaded mechanism of Morita) for another (the ramped and assembly groove of the pin/groove mechanism of Abulhaj) would have been obvious to one of ordinary skill in the art at the time of the invention since the substitution of two well known connection mechanisms (pin/groove and threaded) which are used as depth mechanism such as the one shown in Abulhaj would have yielded predictable results of an adjustable depth mechanism.

Additionally, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hofert in view of Morita with the pin/groove mechanism that contains an assembly groove extending in a direction which is deviated from the direction of the ramped groove, in order to have an entry point for the pin which would allow the pin to slide straight through until the ramped groove is reached.

Hofert in view of Morita and Abulhaj discloses all the claimed limitations discussed above however, Morita in view of Morita and Abulhaj does not disclose the raised boss separating the assembly groove from the ramped groove.

Nguyen discloses an adjustable length of a injection needle where the length is adjusted by a nozzle and collar combination as seen in Fig. 1 and 5-6 which includes an groove (44) and pin combination. The Nguyen further discloses a raised boss (49)

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which is used to prevent the collar and nozzle from disengaging (Col. 3 Lines 40-45 and Fig. 2).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hofert in view of Morita and Abulhaj with a raised boss in view of the teachings of Nguyen, in order to prevent the collar and nozzle from disengaging.

With respect to the raised boss being between the assembly and the ramped groove it would have been obvious to one having ordinary skill in the art at the time the invention was made to place the raised boss between the ramp and assembly grooves, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Furthermore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to place the raised boss between the assembly and ramp grooves since it would be necessary to have the raised boss at that location in order to maintain the pin only in the ramp portion which controls the adjustments desired for the nozzle.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hofert et al. (4,203,446) in view of Morita (5,730,753), Abulhaj et al. (6,852,119), and Nguyen et al. (5,944,700) and further in view of Duchon et al. (5,964,718).

Hofert in view of Morita and Abulhaj discloses all the claimed limitations discussed above however, Hofert in view of Morita and Abulhaj does not disclose that the contact surface is concave.

Duchon discloses that the contact surface (48) is concave (Col. 5 Lines 28-30 and Fig. 13)

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hofert in view of Morita and Abulhaj with a concave contact surface in view of the teachings of Duchon, in order to have a contact surface that adjusts to the lancing surface with minimal impact on the lancing surface.

9. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita (5,730,753) in view of Abulhaj et al. (6,852,119) and Nguyen et al, (5,944,700) and further in view of Walen (5,941,891).

Morita in view of Abulhaj and Nguyen discloses all the claimed limitations discussed above however, Morita in view of Abulhaj and Nguyen does not disclose that the detent is cantilevered.

Walen discloses a collar (124) with extending legs (126) and a detent (128) where the legs and detent are cantilevered in order to be pushed and locked in to component 90 (Fig. 4).

Note that Morita also discloses a leg (23) extending from the collar (Fig. 1) however the detent is not on the leg but on the portion of the collar before the leg starts (Fig. 2).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Morita with a cantilevered detent/leg in view of the teachings of Wales, in order add a flexible member that with facilitate in eth manufacturing of the nozzle assembly.

Morita in view of Abulhaj and Nguyen discloses the claimed invention except for leg being longer in order to include the detent on the leg. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a longer leg, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

10. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hofert et al. (4,203,446) in view of Morita (5,730,753), Abulhaj et al. (6,852,119), and Nguyen et al. (5,944,700) and further in view of Walen (5,941,891).

Hofert in view of Morita and Abulhaj discloses all the claimed limitations discussed above however, Hofert in view of Morita and Abulhaj does not disclose that the detent is cantilevered.

Walen discloses a collar (124) with extending legs (126) and a detent (128) where the legs and detent are cantilevered in order to be pushed and locked in to component 90 (Fig. 4).

Note that Morita also discloses a leg (23) extending from the collar (Fig. 1) however the detent is not on the leg but on the portion of the collar before the leg starts (Fig. 2).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Morita with a cantilevered detent/leg in view of the teachings of Wales, in order add a flexible member that with facilitate in eth manufacturing of the nozzle assembly.

Hofert in view of Morita and Abulhaj discloses the claimed invention except for leg being longer in order to include the detent on the leg. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a longer leg, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Response to Arguments

11. Applicant's arguments filed April 9, 2010 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIANNE DORNBUSCH whose telephone number is (571)270-3515. The examiner can normally be reached on Monday through Thursday 7:30 am to 5:00 pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571) 272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. D./
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/TODD E. MANAHAN/

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